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ABSTRACT

This collection of articles addresses various aspects of curriculum and instruction at Utah's community colleges. First, "Reflections on the Changing Role and Mission of Utah Community and Technical Colleges," by Don A. Carpenter, considers the colleges' role in meeting needs for comprehensiveness, "practical" general education, and curricular balance and their role in business and industry partnerships and workforce development. "Education for a New Technological World," by Lucille T. Stoddard, describes a faculty retraining model for high technology fields. Joe A. Green's article, "In Defense of Liberal Education," examines the risks involved in undermining traditional liberal education in favor of a career training focus. "College of Eastern Utah Employment Action Project: Alternatives for the Unemployed," by Charles M. Acklin and Gary S. Wixom, describes an employment counseling/job placement program for unemployed coal miners. Vard Roper, in "Quandary at the Machine Shop," explores changing workforce conditions and the need for educational systems to keep pace with industry. "The Need for Library Instruction in Two-Year Colleges," by Brad D. Wightman, provides a rationale for bibliographic instruction and faculty involvement. Drawing from experiences at Utah Technical College at Salt Lake, Carol M. Henderson offers suggestions for colleges interested in "Getting Started in Alumni Development." Finally, "A Parting Shot: Finding Shakespeare," by Ace G. Pilkington, defends the study of Shakespeare. (LAL)

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A FORUM ON TEACHING AND LEARNING IN UTAH COMMUNITY AND TECHNICAL COLLEGES

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A Forum on Teaching and Learning in Utah Community and Technical Colleges

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EDITORIAL COMMENT

REFLECTIONS ON THE CHANGING ROLE AND MISSION OF UTAH COMMUNITY AND TECHNICAL COLLEGES

Dr. Don A. Carpenter

Educators have not historically participated in serious discussions of economic development strategies for the state. Their perceived role and mission has been to teach, conduct research, and otherwise promote learning. Economic development as an issue has been left to politicans, business and industrial leaders, and state government officials. However, as state budgets are severely pressed to respond to the demands of public and higher education — as well as health, corrections, transportation, and a host of other public concerns — enlightened educators are beginning to view development of the economy as an important issue not only for politicians and businessmen, but for everyone concerned about state budgets and the maintenance of quality at all levels of the public system of education. And as strategies for economic development focus on expanding the capacity of the educational system to prepare a productive workforce responsive to the shift from an industrial to an information society, educators are beginning to actively listen and participate in the discussion.

Most of the discussion in Utah to date, including conferences and retreats on advanced technology and productivity, has focused on the role of research and development in improving the state's economy. Attention has centered primarily upon the high-technology fields of engineering, mathematics, and computer science at the four-year and graduate-level colleges and universities. The "spinoff effect" of university research and development in building the state's economy is clearly recognized. In fact, the need for a sustained commitment to university research, basic and applied, is crucial not only in the interest of maintaining a healthy state economy, but in providing scientific leadership and a competitive edge for American industry and democratic institutions in an increasingly interdependent global economy.

Providing Technical Education

It is this editor's opinion, however, that in Utah the role of community colleges in providing technical education has not been sufficiently examined, nor has the capacity of our two-year colleges to respond been fully assessed in the formulation of state economic development strategies. These institutions deserve more attention because " . . . there is strong evidence that technical education plays a significant role in economic development. Strong postsecondary education programs that prepare technicians and support staff seem to be an important ingredient in the success of industrial development." (*Technician Education Yearbook*, 1982).

Lest liberal arts educators are inclined to tune out at this point and duck the dialogue on the basis that economic development and narrow vocational-technical training have no place on the higher education agenda, my

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plea is that we set aside dogmatic differences for the moment and consider the needs and expectations of the changing society in which we live, the students we serve, and the supporting public who ultimately legitimize our efforts.

The major objection for vocational-technical education in the college curriculum, according to some, is of course that it is too specific, too narrow, too limited in purpose and pursuit. Joe Green, in defending the liberal arts in this issue of *Focus*, effectively illustrates many of the dangers that can come to society and to individuals through over-concentration on technology. My own view is that neither economic development nor "education for jobs" can ever represent a total educational policy. Broad human development afforded through general/liberal education must maintain high priority as the heart of the curriculum. However, if the curricula and motivations of students and faculty in many traditional liberal arts disciplines are closely examined, one finds that they too can become overspecialized and narrow — so much so that they may overlook or lose the values of liberal education. By definition, much of what is normally thought to be liberal education, when pursued for external ends — a grade, a degree, a job, a promotion, or even acceptance into graduate or professional schools -- has in fact become a form of vocational education.

To Stimulate Dialogue

The purpose of this editorial is not to renew or to resolve (if it were possible) longstanding debate over the relative merits of liberal or vocational education; rather, to briefly examine several important issues facing the Utah System of Higher Education in the hope of stimulating dialogue among faculty, administrators, and policy makers on the future of community colleges in this state. There are a number of factors at play that threaten to reshape our institutions, especially two-year colleges, including new demographics, the effects of advanced technology and other changes in the workforce, growing needs for remedial education even in the face of quality reform measures and a heralded "back to basics" movement in the public schools, greater competition for scarce state dollars, new challenges to open access and comprehensive educational offerings, as well as increasing emphasis on narrow vocationalism at a time when Utah higher education faces the need to accommodate growing numbers of students seeking traditional baccalaureate education.

Community College Development

It is widely acknowledged that during the past two decades community colleges nationally have successfully challenged many traditional views of the mission of higher education. Under the leadership of Edmund J. Gleazer, head of the American Association of Community and Junior Colleges (AACJC) from 1958-81, most of these institutions became student-centered, community-based, performance-oriented "people's colleges." Gleazer and his followers were not so concerned with the community college as an institution of higher learning as they were with developing a comprehensive community center of education offering programs and services in five major categories: (1) academic transfer programs, (2) vocational/occupational training, (3) continuing education and community services, (4) general education, and (5) student services — including counseling and remedial or developmental education.

A major factor in the rapid growth of community colleges was the large number of people reaching college age during the 1960s when for a time a new college was opened nearly every week somewhere in the country. The appeal of these institutions was their comprehensive offerings and "open door" philosophy supported by a willingness to take on tasks shunned by more traditional colleges and universities. As a result, by 1982-83 en-

rollments in the nation's community colleges had reached 7.44 million students in credit courses and 4.35 million in noncredit offerings. Philosophically, geographically, and economically, the community college seemed to be reaching out in service and commitment to provide some offerings for all of the people. In nearly every state, Utah being a notable exception, the community college became an important safety valve for the more selective four-year colleges and universities and for society in general, allowing the twin goals of academic excellence and open access to be reconciled.

Utah Not Typical

In Utah, comprehensive community colleges have not flourished for a number of reasons, namely: (1) until only recently, Utah four-year colleges and universities were not very selective in admitting students, opting to keep flexible "open door" admissions policies which in many other states had been reserved largely to community colleges; (2) vocational-technical programs have previously been limited in Utah's three rural two-year colleges, meaning that these institutions have served primarily "junior college" transfer functions; (3) the state's two urban technical colleges, until two years ago, were restricted from offering associate of science degrees and by law are still limited to offering not more than 25 percent of their total courses in general education; (4) all Utah colleges and universities continue to maintain broad programs of continuing education and community services, even noncredit and lower division offerings across the state, that in other parts of the country remain largely the province of community colleges; and (5) Utah four-year colleges and universities continue to provide substantial instruction in remedial and developmental education, another important role of community colleges elsewhere.

The above is not to suggest that Utah institutions have in any way served students inappropriately or somehow been negligent with respect to the development of comprehensive community colleges. They just haven't developed, partly because our urban four-year colleges and universities have in the past assumed the role of "being all things to all people" rather than limiting their focus to genuine baccalaureate, graduate, and research missions. For example, in 1982 when the University of Utah ran its full-page advertisement recommending a more rigorous high school curriculum for U of U-bound students, about one-third of the freshman class (7,000 students) was on probation at one time or another during the year. Thus, instead of a nearby comprehensive community college providing the remedial education and other student services required to qualify thousands of students for university level coursework, and without the important community college function of permitting students to explore their options and aptitudes, both academic and vocational, before settling on firm educational goals, the University had in addition to its other roles served as an area community college (except that students were not exposed to nor able to enroll in a variety of vocational programs, though many who failed at the University might have been better served through such offerings had they initially enrolled in a comprehensive community college).

It may well be, that in light of Utah's unique blend of geography, demography, economy, and cultural and educational heritage, the configuration, roles, and missions of Utah colleges and universities have heretofore served the state and its population as well as could be expected. But the times are changing very rapidly, and Utah is again out of step with the rest of the country in that higher education enrollments in the state are projected to increase dramatically while other states are experiencing declining numbers of students. Four-year colleges and universities elsewhere no longer need the safety valve of community colleges to relieve pressure gen-

erated by the masses wanting to enter. Rather, they are anxious to admit students to fill empty dorms and classrooms, even though many may require remedial education. As Utah senior institutions, meanwhile, become more selective in admitting students and focusing on primary missions, and when many potential students are turned away through enrollment management practices designed to preserve quality within allocated budgets, perhaps the safety valve role of comprehensive community colleges in preserving open access, providing lower cost transfer education, and offering vocational as well as remedial education where needed should receive new emphasis in this state.

Comprehensiveness and Open Access

In many states concern about the capacity to adequately finance public higher education has led to serious questions about open access and the degree of comprehensiveness institutions should be permitted to maintain. Many believe it is naive to think that colleges or universities can serve everyone's needs, and the public as well as some governing board members have begun to seriously challenge the rationale for spending public dollars on high school level instruction at postsecondary institutions. The governor of Virginia has flatly called remedial higher education a contradiction in terms.

If tougher admissions standards are imposed in higher education to promote quality, what should be the proper response of community college leaders whose institutions have historically been committed to serving all segments of society that can benefit from their programs and services? If the "quality revolution" is interpreted by community colleges as an excuse to exclude less qualified or socially or economically disadvantaged students, how will their needs be met? While the Utah Board of Regents has adopted a policy of providing open access to all Utah students "somewhere in the System," as four-year institutions become more selective, opportunities for access necessarily fall to the mission of the two-year college. Yet even here the open access philosophy is faced with new complexities.

Admissions officers report that increasing numbers of Utah two-year college students are "reverse transfers," meaning that they have already earned baccalaureate or higher degrees but, unable to find satisfactory employment, have returned to learn new job skills. Thus, "training the educated" is a new challenge for the community college. And with respect to admissions policies, if the public is concerned about providing "second chance" financing for high school level remediation in higher education, to what extent will they want to fund additional job training in the two-year college for students who have already completed four or more years at a public college or university? Many of these students will of course be better qualified than recent high school graduates, and while their total numbers may be relatively few, their percentage could be quite high in limited enrollment and high demand programs such as electronic technology, computer-aided drafting, information systems, or nursing. My point is not to suggest in individual cases who should be admitted, but to state my personal view that for the community college to routinely accept the better prepared student due to enrollment caps or financial limitations at the expense of providing place for the less prepared who may often be members of lower socioeconomic groups would be to abandon a basic tenet of the community college mission — that is, a strong commitment to open access.

If there is agreement that open access is a goal worth pursuing, then a complementary goal for achieving that end in the community college is the maintenance of a comprehensive program, including remedial/developmental education. Virginia community college president George B. Vaughan says that " . . . in practical terms, the commu-

nity college must maintain its comprehensiveness, for the open access institution that offers few or no choices is a contradiction in terms. To lead students to believe that they are being given a chance for an education beyond high school, when in fact their choices consist of programs for which they are not prepared, is dishonest." Vaughan believes that open access and comprehensiveness must be retained as community college keystones, and that these institutions will remain significant in America " . . . only if they continue to devote resources to serving those segments of society which the rest of higher education chooses to ignore." (Vaughan, 1984).

Business and Industry Partnerships

In 1981 Dale Parnell became president of the AACJC, and in contrast with the community-based social service philosophy of community colleges espoused by his predecessor, Ed Gleazer, Parnell has based his leadership on the slogan of "putting America back to work." The implications are clear. The percentage of community college students enrolling in vocational programs has grown steadily during the past few years (now about 67 percent), while the ratio of those transferring to four-year programs has decreased. Perhaps the dominant role of the community college nationally now lies in serving business and industry, and in providing training and retraining for America's workforce.

Thus, whether Utah's two-year institutions are called technical colleges, community colleges, or simply "colleges," as they adhere to the Regents' 1982 role designation to become comprehensive community colleges offering programs "closely linked to community needs," their orientation toward business and industry will likely expand in providing flexible curricula sensitive to the changing requirements for skilled workers. Why, therefore, don't we solve the "name change/identity crisis" of the Provo and Salt Lake colleges by calling them what they are — community colleges, serving the varied learning needs of their communities? It is my opinion that these two urban institutions, particularly, will find an increased role in developing business and industry partnerships as well as alliances for industrial promotion in the years ahead, and that the community college name will only enhance their image and impact with the respective constituencies they serve.

The article by Charles Acklin and Gary Wixom in this issue of *Focus* describes a beginning successful cooperative effort at the College of Eastern Utah in putting America back to work. Meanwhile, Lucille Stoddard's article addresses the challenge of maintaining an informed and up-to-date faculty, and proposes a retraining model of rotating faculty into business and industry for professional renewal in realistic high technology work environments.

The Changing Workforce

It may be that the changing nature of work itself, whether blamed on the computer age, the information age, the age of high technology, or other terminology describing society's shift from traditional smokestack industries to those based on service and advanced technology, will influence the direction of community colleges far more than the views or philosophies of educational planners or governing boards. Last year the National Governors Assocation estimated that 7.1 million jobs will be created in high-technology industries. The governors also stated that " . . . almost seven million manufacturing employees will be affected by automation in the next 20 years, and anticipated advances in electronic industrial systems and manufacturing techniques will affect 13 percent of the workforce. Some forecasters estimate that the skills of 40 percent or more of the current workforce will become obsolete over the next two decades." (National Governors Association, 1983).

Within higher education, community colleges are the primary providers of trained technicians. Because of the demand for technicians, however, and since trained faculty are difficult to obtain and equipment is costly, questions are being raised in some quarters whether industry will have to assume a larger role in training entry-level workers. It's another question of role and the extent to which tax-supported institutions ought to attempt to meet the training needs of specific firms or companies.

Some states, such as Texas, Illinois, and the Carolinas, have answered this question through close liaison with state departments of economic development to aggressively seek new business and industry by promising to train employees and have them ready for work as soon as new plants open. One million dollars were appropriated during the last legislative session for this purpose in Utah. In other states, private companies and independent schools have emerged to provide specific job training that has not been available or has been inadequately provided through public institutions.

For example, last summer the J.C. Penney Company made a corporate decision to get out of the auto service business. Instead, they got into the business of education and training. We talk about Orwell and 1984, but how many Utah college faculty are ready to view themselves as competitors with J.C. Penney in the same market? It is doubtful that such a corporation would enter the field of education if there were not some evidence that a market exists that isn't being served.

Another Dilemma

In addition to offering job-entry training for business and industry, community colleges across America have been a major provider for the retraining of large numbers of workers already employed. Beyond the growing needs for employee retraining and updating, however, researchers describe another dilemma of our changing economy — the emergence of a large tier of workers who will require less rather than greater education and training:

> Most new jobs will not be in high-technology occupations, nor will the application of high technology in existing jobs require a vast upgrading of the skills of the American labor force. To the contrary, the expansion of the lowest skilled jobs in the American economy will vastly outstrip the growth of high-technology ones. And the proliferation of high-technology industries and their products is far more likely to reduce the skill requirements for jobs in the U.S. economy than to upgrade them. (Levin and Rumberger, 1983).

Moreover, it has been projected that " . . . for every two jobs demanding managerial or professional skills and offering relatively good pay, the service sector creates three or more jobs with limited or low skills and low pay, mostly in the clerical, service worker, and laborer occupations." (Noyelle, 1983).

It appears that many skilled workers in the future will be working in high tech occupations instead of in manufacturing industries. Thus, some community colleges are reassessing their commitment of resources into such highly specialized fields as robotics or laser technology. Instead of having students prepare for a single high tech job, community colleges may have to consider providing technical training for work in a number of compatible areas but with an emphasis in none for specific jobs — a sort of two-year "liberal-technical" degree, as Parnell calls it. (Perhaps this approach toward curriculum development will hold the key to solving Vard Roper's quandary in the machine shop at UTC/Provo, described in another *Focus* article).

Since the greatest number of Utah job openings will not be in high tech industries, but in rather low-paying service positions such as janitorial workers or fast food handlers requiring little or no technical training, will community colleges now have to address these training needs or will they continue allocating primary resources and efforts to-

ward specialized training? To what extent will they alter their role and mission to provide more "practical" general education — those parts of the curriculum that are already under heavy stress in Utah two-year colleges because of the demand for basic courses directly related to skilled vocations as well as increasing demand for university-transfer offerings? In an environment of such conflicting demands, there is a serious risk of resource misallocation as some fields become overprogrammed while others receive a scarcity of program offerings.

The Need for Balance

Simple and easy answers will not suffice as our colleges attempt to meet the needs of an increasingly technological society. A "high-tech" society seems to be as difficult to maintain as to create, as we experience the breakdown of word processors, cars, planes, and air conditioners due to the lack of skilled technicians. But the other side of the issue must also be examined, and that is the human element, the spiritual side. John Naisbitt describes the challenge well in his best-selling *Megatrends*:

> High tech/high touch is a formula I use to describe the way we have responded to technology. What happens is that whenever new technology is introduced into society, there must be a counter-balancing human response — that is, high touch — or the technology is rejected. The more high tech, the more high touch . . . Now, at the dawn of the twenty-first century, high tech/high touch has truly come of age. Technology and our human potential are the two great challenges and adventures facing humankind today. The great lesson we must learn from the principle of high tech/high touch is a modern version of the ancient Greek ideal — balance. We must learn to balance the material wonders of technology with the spiritual demands of our human nature. (Naisbitt, 1982).

I think the high tech/high touch principle speaks to the vitality of the comprehensive community college philosophy, calling for strong programs in both technology and liberal arts/general education. The balance which Naisbitt advocates would seem to be less attainable through the more isolated roles of either narrowly defined technical colleges or strictly transfer-oriented junior colleges. While in many ways math and electronics instructors stand at the intersection of technology training and education, it is the humanities, social science, and English faculty who help students express and examine ideas and bridge the gap between high tech and high touch, between opportunity and achievement.

Many educators now refute the idea that the goals of liberal education and those of vocational and technical education are mutually exclusive, since distinctions between the academic and the vocational, the liberal and the technical, the humanities and the crafts have become increasingly blurred in society. Each is needed, each expands our horizons, and each provides new options and experiences to enlarge the human potential. In the world of technology, training of the hand cannot be separated from education of the mind. Why then, do so many persist in trying to artificially separate them in the world of education?

Moreover, a well integrated program of general education will enhance and broaden vocational-technical training competencies and opportunities and is complementary to, though different from, special training for a job or a profession.

Conclusions

With so many events and issues likely to affect the mission of Utah community and technical colleges, it is difficult to predict their future roles with preciseness. However, in light of discernable trends in national and Utah populations, in the economy, the workforce, and in education, I respectfully submit the following as the most promising, responsive, practicable and achievable role prospects for Utah two-year colleges in the years ahead:

1. Further development of the comprehensive community college mission at all five two-year colleges, with sufficient latitude to develop individual institutional roles unique to the assessed needs and interests of constituent students, employers, and the local citizenry.
2. A continued major thrust in providing market-sensitive vocational-technical education at the urban Salt Lake and Provo colleges, with further development of vocational-technical offerings at the rural community colleges consistent with student needs and regional labor market information.
3. Continued strong roles in providing university parallel transfer education at the three rural community colleges, and expanded roles in transfer education at the urban colleges (including permanent authorization for awarding the Associate of Science degree) to reduce enrollment pressures at the senior institutions and to improve equity and access to higher education in the state.
4. Maintenance of quality general education offerings at each college to provide the common knowledge, skills, and attitudes needed by each individual to function as an effective person, family member, productive worker, and responsible citizen.
5. Strengthened student services, including testing and academic/occupational counseling, to help students become more efficient and productive in exploring educational/career options and completing programs of study consistent with learning aptitudes and trends in the labor market.
6. Remedial and developmental education programs available at all five colleges as well as through cooperating high schools uitilizing community school faculty and facilities.
7. A significant ongoing role at each college in providing programs of continuing education and community service to meet the lifelong learning needs of students at both campus and off-campus locations.

References

1. *Technician Education Yearbook*. Ann Arbor, Michigan: Prakken Publications, 1982.
2. Vaughan, George B. "Balancing Open Access and Quality." *Change: The Magazine of Higher Learning* 16 (March 1984): 38-44.
3. National Governors Association. Task Force on Technological Innovation. *State Initiatives in Technological Innovation*. Washington, D.C., 1983.
4. Levin, Henry and Rumberger, Russell. "The Educational Implications of High Technology." Paper presented at an invitational conference, "Education for California's Changing Economy," Sacramento, 3 May 1983.
5. Noyelle, Tierry J. "People, Cities and Services." *The Entrepreneurial Economy*. 1 (June 1983): 3-5.
6. Naisbitt, John. *Megatrends*. New York: Warner books, 1982.

Education for a New Technological World

Dr. Lucille T. Stoddard

The Chinese have an ancient curse — or an ancient blessing — depending on one's perspective, which is "May you live in interesting times." Those of us who are involved in educating can certainly affirm that times are interesting; we can also augment such an affirmation with other "interesting" adjectives such as "frustrating," "frightening," "exciting," "volatile," and "flexible." We do know we are living in rapidly changing times. Such change is reflected in statistics that indicate when a child born today reaches 50, 97 percent of the information available for that individual will have been originated during his or her lifetime.

Pioneer Spirit

The impact of high technology and the volatile environment in which it rests is also very much a part of these "interesting" times and is impacting educators in a very significant way. President Reagan, in his State of the Union address in 1982, said:

"As surely as Americans' pioneer spirit made us the industrial giant of the 20th Century, the same pioneer spirit today is opening up another vast frontier of opportunity — the frontier of high technology."

Educators who are training for high technology and who themselves are becoming educated, are indeed pioneers. This pioneer spirit is reflected in the risks we are forced to take as we provide the education necessary for a new technological world. Such risks are incurred in determining the purchase of new equipment when we know that, before the bid is let, better and less expensive equipment will probably be available. These risks are also seen in curriculum and new program development that we know will need to be altered within six months. Moreover, these risks are seen in trying to identify job market needs and in attempting to plan for longer than a year. Nevertheless, we are meeting such challenges with aplomb. Programs are being developed, equipment is being purchased, and curricula are being structured.

Faculty Retraining

A critical challenge, however, that is integral to educating for high technology is that of retraining faculty in our colleges and universities. We are finding that, although Johnny may not be able to read, Johnny does not fear the computer. Students are now entering postsecondary institutions with some computer training; and, with the impetus given such training by the State Office of Education, they are coming to us with more and more sophistication. Budding machinists need instructors who understand and teach sophisticated numerical control processes; aspiring draftsmen have every right to expect training in computer graphics, and expectant electronics technicians have every right to assume they will be educated in robotics.

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Therefore, it is critical that we develop a systematic process in our colleges and universities for retraining faculty so they are prepared to educate for the highly technological environment that is comparable with what is needed by business and industry.

In times past, a "terminal degree" meant just that. However, degree and training obsolescence is now comparable to equipment obsolescence and, as a result, there are those who predict a need for yearly training of some kind for faculty whose disciplines are impacted by high technology. This retraining can be accomplished in part by providing traditional inservice kinds of activities for faculty on individual campuses. Most effective and appropriate training, however, can be found by rotating faculty into industry whenever possible.

A Retraining Model

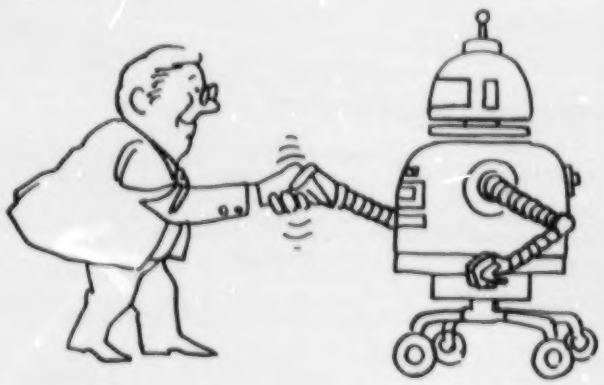
A retraining model that could be explored is one in which an exchange is effected with business and industry. That is, faculty are rotated into industry for a specified period of time and that person whose job was taken is rotated into the classroom.

This exchange can be mutually beneficial. The business and industrial representative is provided with the opportunity to experience first hand the excitement, frustrations, and challenges of training and educating. Moreover, with such involvement often comes empathy for and commitment to the education processes that may be difficult to understand outside the education environment. For that representative, too, additional personal and professional skills should be developed and finely honed that contribute to a more valuable employee. Such skills could include the ability to express oneself more clearly as a result of having to develop structured step-by-step lesson plans and having to explain ideas, concepts, and principles to students; the ability to interact with one's coworkers more effectively as a result of learning the necessary patience to explain techniques and processes over and over again to students; and the ability to interact effectively with supervisors and administrators.

The rewards for having teachers rotate into business and industry have been realized already in this State as a result of a training program developed for business teachers in Utah and funded in 1982 by the Utah State Office of Education. This model program was developed in a consortium effort with leadership from Weber State College, Utah State University, and Utah Technical College at Provo. The primary thrust of the program was to give faculty an opportunity to intern in an industrial setting that was highly technology-dependent.

This program was patterned after student cooperative education programs. Faculty were rotated on a quarterly basis and either shared a job during the school year with one or two other instructors, or worked full time during the summer months. Faculty interns were paid by the firms and were able to earn credit toward advanced degrees or recertification.

The steering committee, consisting primarily of business and industry representatives from high technology firms, assisted in matching faculty with those industries in which a symbiotic relationship appeared likely. This match paid off because not a single failure or negative experience occurred. All participants, both faculty and business representatives, reported positive results.



Advantages of the Model

Simulated high technology inservice education can produce good instruction for faculty. Nevertheless, working in an actual business or industrial setting has obvious advantages. For example, we would rarely be able to retrain faculty on equipment as sophisticated as that found in participating companies like Pacific Northwest Energy. In addition, there is an obvious advantage to being a part of a high technology team in a realistic work environment.

As a result of the documented need for the retraining of faculty involved in educating for high technology and the experiences resulting from this model pilot program, the following recommendations might be considered:

1. The Utah State Office of Education could consider strengthening this project with additional funding and personnel so that faculty in all disciplines and not just business could be provided an exemplary mechanism for retraining.
2. College and university administrators should consider developing professional leave systems to subsidize and thus encourage faculty to rotate into high technology positions for retraining.
3. Task forces or committees should be established to develop alternatives for keeping faculty in high technology disciplines updated.

Educators have been criticized in times past for providing an environment which "lags" behind the needs of business and industry. Therefore, the timeliness of our being proactive rather than reactive is critical.

In Defense of Liberal Education

Joe A. Green

The 1983 issue of *Focus* contained an article by Lowell Hansen of Dixie College titled "The Information Society and the Technical Instructor". Professor Hansen's thesis was that as modern society shifts from an industrial economy to an information and service economy, many of the scarce social resources, normally directed to liberal education, should be directed toward vocational and technical education.

The argument is that future job trends in Utah indicate that 80 percent of all new jobs will be vocational in nature while only 20 percent fit the professional category. In the new information-based society, the old on-the-job training and apprenticeship programs are no longer adequate. Rather, extensive technical knowledge coupled with the well-developed manipulative skills necessary for the technical society must be acquired in community or industry-based vocational education institutions. The conclusion is that more money needs to be poured into technical fields to attract high quality instructors and allow them to run high quality programs.

Skills Training

Professor Hansen asserts that the purpose of liberal education is professional training, and he implies that here is the culprit that prevents the educational establishment from moving into the modern age. He says that ". . . unless the technical student can see relevance and application of (a literature) course's content to his goals, he may remain convinced that he his wasting his time". The message is that policy-makers, administrators, and liberal education instructors had better get on the technical bandwagon and support skills training as well as academic instruction. This idea seems to envision a Utah community college instructional program of technical training supported by those academic fields that supply relevant skills, i.e. reading, writing, etc. I believe this would also mean changing traditional general education requirements to include large blocks of technical requirements. This implies that subjects that have traditionally occupied a large part of the general education requirements that have become less relevant to the modern world — like biology, art, philosophy, and history — would be significantly reduced.

Certainly there is much in Profesor Hansen's paper that makes sense. If 80 percent of all new jobs will be in technical fields, logic and common sense dictate a de-emphasis on professional training programs and a redirection of those resources into high demand areas. It is immoral and uneconomical to graduate Ph.D.'s in history or literature when there is no reasonable likelihood that they will be able to find jobs in their fields of training.

Liberal Education Values

The problem with his argument is that it fails to understand the concept behind liberal education. Consequently, if Professor Hanson's idea and resulting program were accepted and implemented by education

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funding agencies, the result would be long-run social disaster. Since his program fails to comprehend the full nature and purpose of liberal education, its implementation would result in the loss of many unperceived social benefits. The cost of discarding these benefits would be a diminishing of our democratic culture.

The vision of liberal education as skills training is much too narrow. Dr. Sterling McMurrin, former U.S. Commissioner of Education, has written that the function of our education system in a democracy is to enhance the value, well-being, and freedom of the individual. (McMurrin, 1965). This function is partially filled by the occupational skills training that Professor Hansen glorifies and which no society can afford to ignore. But people are defined by more than their economic roles; they have political roles, as well as social, artistic, and spiritual natures, and the education system has a large responsibility to help individuals develop in these "less economically useful" but still important areas.

Education's Duty

The primary duty of education in enhancing the value, well-being, and freedom of the individual is to introduce students to what philosopher Michael Oakshott calls the "inheritance of human achievement." He defines this inheritance with concepts like "feelings," "visions," "beliefs," "understandings," "languages," "intellectual and practical enterprises," "rituals," "canons and maxims of conduct," "works of art," "books," "tools," "artifacts," "organizations," "procedures," and "skills" (Oakshott, 1967). Education's challenge, according to Oakshott, is that much of this inheritance does not lie on the surface of the present world. It will not be in current use; some may even be forgotten, out of style, and unpopular because nothing assures us that what is popular or relevant or useful is the most valuable part of our inheritance. Therefore, the business of education is to release the student ". . . from servitude to current dominant feelings, emotions, images, ideas, beliefs and even skills, not by inventing alternatives to them which seem more desirable, but my making available to him something which approximates more closely the whole of his inheritance (Oakshott, p. 162)."

In other words, education should help the student develop a disposition for understanding, appreciating, and criticizing all aspects of his culture. This disposition is developed through the clash of social instinct, critical intelligence, and moral conscience. Once developed, it frees the individual from the bondage of ignorance, incompetence, bigotry, superstition, habit, and irrationality (McMurrin, 1976).

Benefits to Students and Society

When individuals undergo this kind of educational experience, it translates into numerous benefits for society. Adele Simmons reports the following incident:

> One night last winter, a student who came to my house for dinner announced that she would have to leave early to attend a meeting. She was a member of a citizens committee that had been convened to make recommendations about what recombinant DNA research would be permitted in (our) town. This young woman was not a specialist in genetics; she was simply a concerned citizen. Clearly society expects colleges to prepare non-specialists to sit on such committees and exercise informed judgment about such questions (Simmons, 1979).

In addition to preparing citizens for their economic and political roles, educational institutions in a democracy have a major responsibility to enhance the spiritual nature of each individual.* This is a crucial need in view of our modern "me first" generation, where new college freshmen are, according to college president Leon Botstein ". . . gifted, but unable to concentrate and cultivate their memories, unable to absorb logical written

* I use the term spiritual in the broad philosophical sense of commitment to previously chosen values, tolerance, respect for others rights, charity, honesty, openness to new ideas, etc.

arguments, unable to retain what they read or remember facts long enough to make them their own. . . . The reason behind all this is a profound and devastating absence of inner motivation. Fundamentally, students arrive in college with the attitude of factory workers. They are alienated from the task of learning, which they think is an oppressive necessity, like wage labor. . . . Their motivation is tied exclusively to the usefulness of the area of study to future career or social display (Botstein, 1979)."

In other words, students in our modern technologically oriented society seem to lack some of the spiritual attitudes that were valued in the past; attitudes once considered more important than status and material gain. This was further confirmed in my mind when, in the process of preparing a team-taught humanities course dealing with growth and technology issues, a colleague and I approached several members of our college's vocational faculty. We were seeking ways to make this new course more relevant to the needs and concerns of vocational students. One instructor suggested that we should teach the students how to work. "We give these kids the skills," he said, "but when they get on the job they don't know how to work." Like Botstein, this instructor believes that his students lack commitment to some important, traditional values.

Attitudes and Values

It turns out that traditional liberal education does go a long way toward solving these problems that I have labelled spiritual. In a seminal study, education specialist William Perry found that most students move through a series of developmental stages in their four-year college experience. Freshmen typically begin college with non-critical, either-or, narcissistic attitudes. The educational process then moves most students to a point where they learn to recognize the relativism of and antinomies in the world. Finally, students orient themselves to this new understanding of the world through the activity of personal commitment to such values as reasoned decisions, flexibility, work, confidence, self knowledge, tolerance, contemplation, and an orientation toward others rather than self (Perry, 1970).

These are only a few of the benefits that come from an education that recognizes the full nature of human beings rather than concentrating solely on the individual's economic role. But even more importantly, we must recognize the problems that are associated with watering down our attempts at liberal education. A modern technological economy confers costs and dangers, as well as benefits, on a society. One useful scheme for identifying these costs and dangers comes from Postman and Weingartner. They identify three major threats modern society poses for those concerned about the value, well-being, and freedom of the individual: 1) the communications revolution, 2) the change revolution, and 3) the rise of centralized institutions (Postman and Weingartner, 1969).

The communications revolution refers to the proliferation of a mass, concentrated media in "which the number of messages increases while the amount of information decreases." There is more media, but it communicates fewer significant ideas. The result has been a reduction in available and viable democratic channels as newsmen and political candidates rely on the methods of propaganda such as image, simplification, and an either-or analysis of the issues. Thus we identify ourselves with meaningless labels like liberal and conservative; we fail to question or analyze deeply, and society succumbs to a sort of spiritless, mechnical, abstract functioning which does not allow much room for individual thought and action.

The Change Revolution

The change revolution is Postman and Weingartner's term for the rapid rate of technological and scientific advance. The idea is that large portions of the knowledge and tools available now have been developed

in the past one hundred, or fifty, or even twenty-five years. The point is that in modern times, change has changed. Even fifty years ago most people were born, grew up, and lived their entire lives without travelling more than fifty miles and without confronting any serious questions about their traditional beliefs; stability was the essence of reality. Now change occurs so quickly that traditional values, beliefs, and patterns of behavior become inadequate unless they are continuously worked on, thought about, and critically analyzed. Without a sense of the origin and rationale of their values, beliefs, and behavior patterns, many people lapse into apathy rather than face these issues. This is a major cause of the decline in political participation and religious adherence, for the widespread use of drugs, T.V., and locked doors as escape mechanisms, and for the egocentric, materialistic, narcissism of modern society.

The third threat to the individual posed by our modern technological society is centralization. Most of the major institutions in society — business, government, the press, labor unions, universities, and even religion — have evolved into large bureaucratic organizations. These bureaucracies, which are indispensable in a complex modern world, are "repositories of conventional assumptions and standard practices", and they are highly resistant to change (Postman and Weingartner, pp. 12-16). In bureaucracies, behavior and action come to be based on precedent, custom, and rules. Those attempting to counter these tendencies with questions like why do we do that? or more radically, is it right to do that? are considered trouble makers. Unquestionably, large centralized organizations are a threat to freedom and democracy.

The danger of under-emphasizing the liberal education experience is now obvious. Policies that would stress vocational or professional training at the expense of liberal education do not address the struggle for individual freedom against centralized bureaucracy. They also fail to address the problem of dehumanization which effectively destroys the quality of life for many in our society (McMurrin, 1965, p. 66). Dehumanization is a symptom of rapid change in technology and communications. It denotes treating people as less than human through activities such as slavery, torture, exploitation, and discrimination. Such activities can only happen if our ideologies allow us to fracture the concept of man so that individuals become either roles (voter, taxpayer, consumer, producer) or types (black, Jew, secular humanist, bircher, leftist, right winger) instead of real, whole, integrated persons.

Threat to Freedom and Dignity

Bureaucracy and dehumanization combined are the major modern threats to individual freedom, dignity, and well-being. Centralized organizations create situations where people place institutional loyalty over moral duty; dehumanization occurs when classification schemes are used instead of understanding and personal experience in dealing with other people. In terms of scale, history's worst atrocities — Stalin's elimination of Kulacks and intellectuals in the 1930's, Christianity's various wars over religion, Hitler's "final solution" — were all the result of blind obedience to institutional imperatives in combination with widespread acceptance of role and type abstractions. This is the real, ultimate danger risked by a society that educates only for skills. As Hitler's wartime armaments minister, Albert Speer, the man

who kept German war industry going even during the heaviest allied bombing, stated:

> We owed the success of our programs to thousands of technicians with special achievements to their credit to whom we now entrusted the responsibility for whole segments of the armaments industry. This aroused their buried enthusiasm. Basically I exploited the phenomenon of the technician's often blind devotion to his task. Because of what seems to be the moral neutrality of technology, these people were without any scruples about their activities. The more technology the world imposed on us by the war, the more dangerous was this indifference of the technician to the direct consequences of his anonymous activities (Speer, 1970).

The last thing policy makers should do is develop an educational policy with its major focus on career training. Really relevant education will orient students to modern society as whole persons. The risks involved in undermining traditional liberal education are high! Our democratic way of life and our personal freedom and dignity are at stake. We should not undervalue liberal education — ideologically or financially.

References

1. Sterling M. McMurrin, "Education and American Values," *Reprint from Proceedings, Northwest Association of Secondary and Higher Schools, 1965 Meetings*. Copy in the author's possession.
2. Michael Oakshott, "Learning and Teaching," in R.S. Peters ed., *The Concept of Education* (London: Routledge and Kegan Paul Ltd., 1967).
3. Sterling McMurrin, "The Philosophy of Education," in Sterling McMurrin ed., *The Meaning of the University* (Salt Lake City: The University of Utah Press, 1975), p. 9.
4. Adele Simmons, "Harvard Flunks a Test," *Harpers* (March 1979), p. 22.
5. Leon Botstein, "A Proper Education", *Harpers* (September 1979), pp. 34, 36.
6. William G. Perry, Jr., *Forms of Intellectual and Ethical Development in the College Years: A Scheme* (New York: Holt, Rinehart, and Winston Inc., 1970).
7. Neil Postman and Charles Wiengartner, *Teaching as a Subversive Activity* (New York: Dell Publishing Co. Inc., 1969), pp. 3-16.
8. Albert Speer, *Inside the Third Reich* (New York: Avon Books, 1970), p. 283.

College of Eastern Utah Employment Action Project: Alternatives for the Unemployed

Charles M. Acklin and Gary S. Wixom

In response to massive and continuing unemployment in the coal mining industry, a unique program has been developed by the College of Eastern Utah, in cooperation with local agencies, to assist the unemployed workers of Southeastern Utah.

The Employment Action Project (EAP) was formed in 1983 at the request of mining industry representatives through the CEU mining advisory committee. The project is supported by a coalition of personnel from Vocational Rehabilitation, Job Service, the Job Training and Partnership Act (JTPA), Four Corner's Mental Health Center, and the College of Eastern Utah.

The Approach

EAP addresses two general mandates: first, to provide assistance to the unemployed in career analysis; and second, to identify avenues of support once alternative choices have been made.

This EAP service provides indepth, one-to-one, employment, psychological, and educational counseling to the unemployed in Carbon, Emery, and Grand Counties. The majority of the participants will never be reemployed in the coal industry. Without the prospects of reemployment in the mines and with a minimum of transferable skills, the employment prospect for these men and women is bleak. Alternatives are not always apparent even though they are available. This program is geared to help the unemployed find new work opportunities.

Four Levels of Activities

The Employment Action Project has four levels of activity: Introduction Activities, Decision Making Activities, Preparation Activities, and Job Placement Activities.

Introduction Activities. — The Introduction Activities give participants an overview of the Employment Action Project's services. During this session an economic and employment update is presented, a job seeking skill session is taught, and each agency which provides services for the unemployed gives an overview of its services. The participants leave the session with information and contacts which can help them make a career change.

Decision Making Activities. — Between 20 and 25 percent of those participating in an introduction activity session move into the second level of the project. Here, participants are provided with information which assists them in preparing for actual career changes. Vocational and interest assessments are pro-

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vided, resumes are written, and seminars in job seeking skills are available. Educational counseling is provided for those wishing to enter a retraining program. For some, assistance in generating tuition and living expense funds is essential. The agencies cooperating in the EAP devote staff time to help solve these funding challenges. Some participants are provided with additional opportunities to organize and participate in group therapy to help take these first steps to a new life.

The Preparation Level. — The Preparation Level of the Employment Action Project covers the period when the unemployed person is enrolled in a retraining program. During this time counselors are available to assist with the participant's educational and personal problems. Special programs are available that assist in the development of basic skills, and where appropriate, remedial courses are available to help bridge areas of educational deficiency. Specific training programs are then offered in vocational and non-vocational areas.

Job Placement Activities. — The CEU Placement Center (a cooperative College/Job Service Program) creates placement files for each Employment Action participant. The center provides EAP participants with resume writing and resume updating services, video interview practice, and actual employment placement service.

Cooperative Funding

The Employment Action Project is funded by a community block grant and from donations made to the project by the mining industry. However, in the development of the project, funding was not a major concern.

Thus, each participating agency and private business was expected to contribute the resources needed to make the project a success. Mailing costs, staff expenses, and miscellaneous expenses were to be absorbed as regular day-to-day operating costs.

Results

The results of the Employment Action Project are gratifying. Over 300 people have participated so far in the program. Through the project, people are gaining a greater degree of autonomy and sufficiency in their lives; some are starting retraining programs, others have started small businesses, while yet others have found work in other communities where jobs exist.

The process used in organizing the Employment Action Project is one which any community or organization can use. This process organizes a community's resources and maximizes effort to avoid duplication of services. The bottom line is that unemployed people are choosing among alternatives and are building their skills in order to gain greater control of their lives in a difficult situation.

Quandary at the Machine Shop

Vard Roper

Students seeking success will not enter an occupation that offers a low living wage. They will also shy away from a field with few openings. However, it is unlikely that an employer will hire students who are not sufficiently qualified to work on equipment similar to what the employer is currently using. Furthermore, educators cannot train students to meet the needs of specific employer groups without the help of industry, state legislators, or governing boards and administrators for the updating of instructors, methods, and equipment. This quandary is very real for the machinist and the machinist trainee. Conditions in the workforce are changing. Can a student and the educational system keep pace with the dynamic needs of industry?

When people are faced with the challenges of changing events, their outlook must progress with the changes. The more dramatic the event, the bigger the change to be made. There was a time when the majority of products were wooden — an era of carpenters, woodcutters, and carvers. As metals came into prominence, the workers of wood became fewer and some of their skills were lost. The working of metal required new skills as employment opportunities in this area increased. As time passed, some of these skills were no longer necessary, such as those used by the blacksmiths or foundry workers. We are now going through a dramatic period of change. Employers have entered a new frontier and are asking for different machinists skills. But can a student and the educational system keep up?

Changing Labor Demand

At the beginning of the 1983-84 school year, some of our colleges performed an unofficial survey for "lost students." A sudden drop in metals enrollment at these colleges was noticeable, not following trends of the past. The causes were as numerous and varied as the inquiries. Whatever the cause for enrollment declines, the situation appears to be as real as it is complex.

A high demand for qualified machinists remains. Job requests are coming into the college regularly. In past years companies asked for several machinists, kept the best, and let the rest go. Now the companies are asking for a few good employees and are trying to keep them. Employers once asked for people to train as all-around machinists; they now want graduates ready to be fully productive as soon as they are hired. As the economy holds steady, the need for machinist trainees is present but higher quality of preparation is demanded.

As the economy makes a slight upward turn, the call for metalworkers remains consistent. Machine tool builders are hesitant in hiring new people when the economy stagnates, preferring to have those now in the workforce toil extra hours. This situation causes problems for the student or potential student in the machinist area. Meanwhile, entry-level jobs are becoming more specialized and, as a result, wages are dropping. In 1980-81 students were placed in jobs paying from $5 to $7 per hour and, in some

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cases, as high as $8; now we are lucky to place them at $4. When students spend two years of their lives and a considerable amount of money on specialized training, they expect to enter the workforce receiving a living wage.

Sometimes students don't discover that discrepancies exist in skills needed on the job and those they have acquired through their educational program. They haven't had access to the tools and equipment needed to cope with the needs and advances of industry, causing them to be obsolete in their field before the even get started.

Graduates Rejected

An important goal of the college is to provide employers with as many trained persons as needed to make their organizations profitable. Often employers establish requirements that cannot be met in the period of time given. Because of the specialized requirements of each company, it is very difficult to train students to be acceptable to all employers. As a result some companies who have hired our students in the past now reject UTC graduates because they don't "fill the bill" as machinists.

The machine trade is probably one of the most resistant to change. Training stations are difficult to acquire, and as the move is made toward higher technology, costs become almost prohibitive. Even after a station is put into operation, maintenance becomes a problem both in cost and availability. The cost of a training station per student is probably one of the highest in the trade areas, and it becomes a problem to justify financing. Using cost-per-student formulas, the machine trades cannot compete.

Expensive Offerings

A low-cost computer-assisted numerical control (CNC) station, of industrial quality, costs approximately $58,000. Each station without supporting computers will cost a minimum of $6,000. The latter does not provide a common language with industry, but it does provide some familiarity, which gives a good basic understanding of "the real world." As a direct aid to employment, however, such equipment and facilities are not sufficient. A classroom for ten students with four CNC stations and supporting hardware would cost approximately $250,000. One of the major issues to consider is the added cost to maintain present programs and renew outdated equipment.

Some Solutions

There are, however, some solutions to this quandary. Presently some students are being placed into other majors with machine shop as a related subject and trained as machine operators for all types of industry. Other students are completing their first two years of engineering and going on to manufacturing or mechanical engineering in four-year schools. These two directions indicate that both ends of the spectrum in machine trades can be filled.

These two extremes in training seem to indicate that machine shop programs could be used as: (1) a source of employees to companies requiring operators with only a basic understanding of machine tools and the related knowledge of math, print reading, and training in interpersonal skills; or (2) a preengineering program designed to be a feeder to engineering programs at the four-year colleges and universities.

In the case of preengineering, which seems to be the coming trend, we not only find support for recruitment at the counseling level, but also with peers, parents, employers, and cooperating universities. Furthermore, we are being asked to prepare students for further university education.

Developing a strong preengineering program at the two-year level would require a sacrifice of our present philosophy as well as increased cost. This could put the training of machinists in a secondary position. By promoting preengineering as a means of screening students for the state's engineering schools, the program could enhance established machine shop programs. Should this be the case, other departments would benefit from a like situation, as preengineering would directly involve these departments.

Accreditation through the Accreditation Board for Engineers and Technicians (ABET) and a working relationship with the Society of Manufacturing Engineers would help with the process of changing to a preengineering program. Grant money may be available which could help establish the teaching competencies so that the courses would be more transferable. The relationship between the different areas must be established in an engineering program.

Moving in this direction helps those desiring a chance to get a job as soon as possible as well as those with the ability and desire to go on to an engineering school. It doesn't give employers a chance to hire those with substantial machine shop background, however, or with a good understanding of high tech or a state-of-the-art machining.

This then introduces another alternative regarding the machine shops. An impromptu survey was conducted in search of needed CNC people. It was created with enthusiasm. Some employers indicated firmly that, should a program be updated to the point where they could hire productive people out of school, they would offer on-the-job training for a trial period as part of graduation requirements. If it was then agreeable to both parties, the student would be hired.

A third possibility is that of using the machine shop facilities to feed majors in greater demand, either as a supporting class for job occupations that benefit from a machine shop background or as a prerequisite course for other mechanical fields. Machine shop will always remain an important part of mechanically related fields.

The fourth possibility would be to offer a high school exploratory program through extension. Courses might be set up in a mobile van to travel from high school to high school on a six-week stay to serve rural or less populated high schools.

It may be more effective, however, if programs as presently taught, were simply reevaluated and brought up to date. The weakness in this approach is the correlation between industry and education as brought out in the Committee on Machinist Career Development. The training level has been established, but it needs to be made more attractive regarding job openings, wages, and potential advancements.

Obviously, the remaining choice is that of combining several or all of the above possibilities. As an example, we might offer a machine shop course per se, added to an ABET accreditation for engineering, combine part of the drafting and design department and fill in with preengineering courses. With proper scheduling during slack periods, a high school exploratory program could be offered.

Cooperation Required

As this paper has pointed out, we have many options. When the Machinists Career Development Association was active, a concentrated effort by both educators and employers was made to resolve problems. A dual approach was used: One faction was strongly in favor of on-the-job training while the other favored schooling first, followed by specialized training at the company eventually hiring students. After extensive study, it

was found that the best training comes with a working agreement between both groups. Flexibility must be exercised with both, but this is not always an easy task. Some problems and solutions can be pinpointed and blame placed, but a relationship must be developed between educators, employers, and those who influence and direct students' life goals.

Now is the time, while there is a reasonable amount of flexibility and communication between groups, to form a committee to end this quandary. Perhaps the Machinist Career Development Association should be revitalized. One thing is certain, the quandary cannot be solved successfully by one group.

The Need for Library Instruction in Two-Year Colleges

Brad D. Wightman

Einstein once said that imagination and curiosity are more important than knowledge. Ideally, as educators our primary goal should be inspiring the curiosity and imagination of the individual. Today, education and libraries are in the process of renovation because in the past they have met the needs of relatively few people. Now libraries not only collect a culture's literature, but also actively provide access to recently researched knowledge and information needed for all vocations. The two-year postsecondary institution should be in the forefront of this renovation process since it can be the most adaptable and varied of the higher educational institutions in the United States.

There are some commonly held misconceptions among certain members of the educational community regarding new students at community-junior colleges. The first is to think of them as predominantly in the 18-22 year-old bracket. The fact is, their average age is 28 and climbing. A second image is to view them as students only. In reality, the overwhelming majority are part-time students, with college demands coming in a distant third in their priorities, ranking behind family and job (Cross, 1970). These students have misconceptions about how libraries can augment their vocational needs.

Lack of Library Skills

What levels of library experience and skills do such a diverse group of new students bring with them to their first day of class? Unfortunately, there are few published studies that document entrance-level skills in library use. However, one such study of 101 full-time day students of a large urban community-junior college tends to confirm the worst suspicions. Forty-eight percent of the students did not know how books were arranged on the library shelf (that is, by subject); 74 percent did not understand the use of call numbers; 67 percent did not understand the basic author, title, and subject entries in the library catalog; 82 percent could not identify the elements in a *Reader's Guide* entry; 73 percent could not list at least one method of locating a biographical sketch; and 98 percent could not identify a book review source (Lolley, 1975). It is safe to conclude that without extensive instruction, the majority of these students could not perform the simplest of library skills.

These then are the students who are and will be coming into our two-year colleges. To some, learning to use the library is about as interesting as translating Egyptian hieroglyphics and probably just as difficult. Others can take it or leave it. Most will take it, however, if they can be shown that library instruction has an occupational value. Libraries need to convince students they can learn as much about turkey growing and electronics as about Hawthorne and Hemingway in the stacks.

The Challenge

The challenge then is to develop a library instruction program that fits the needs of these students. As with all subject areas, stu-

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dents are at different levels of learning. It is important to begin library instruction at a point the students are capable of understanding and to proceed at a rate that prevents boredom or frustration.

Although there has been a substantial increase in the development of library and bibliographic instructional programs tailored to the occupational needs of older students, there are many academic libraries that do not provide bibliographic instruction as well as academic librarians who do not recognize its value. This may stem from the fact that many librarians still view their role as passive. Too often the emphasis of many college librarians is on materials collection and processing to the detriment of reference and public services. Many times librarians fail to recognize that the primary mission of the academic library is to support the educational program. Libraries should work closely with faculty who need up-to-date books for their vocational classes in new technologies. While prompt ordering of requested materials and other technical service functions are very important, they should not overshadow the task of bibliographic instruction.

Need for Bibliographic Instruction

Students beginning their college career in a two-year institution will in most cases come from a print-oriented high school and enter a print-oriented college. Not only will they remain print-oriented, but if they transfer to a four-year college or university they will need to know the many benefits of the print material held by the learning resources center (LRC).

Librarians, faculty, and students have made a serious mistake in assuming that to know about the physical layout of the library and the services the library provides is enough to be able to use the library. The result of this misconception has been the dull library tours often associated with freshman English classes. Orientation to a library's organization and services is only the first stage of instruction. More important, and more difficult, is the development of a sound library instruction program that recognizes the library as "a highly complicated system, or better, a network of interrelated systems, which organizes and controls all kinds of communication (Knapp, 1966)." Or to put it more simply, when students need to know about lasar technology, they should think that they will quickly find information in the library.

Students need to acquire information concerning the card catalog and the vertical file, to become familiar with a variety of periodical indexes, inter-library loan, reference materials, and generally to feel at east in an LRC. They do not need to know the meaning of "collation" or "tracings," nor do they need to

know the cumulations of an index or specific information of any particular encyclopedia or almanac. They do need to understand methods of procedure, where to look for directions, to observe dates of the material, and to check for author information. They must realize that at times it will be advisable to ask for help and the hope is that they will.

Library instruction will be more meaningful if the values of the library are clearly understood by the students. They should learn the value of the library in reducing their time and effort in researching and/or writing a paper or giving a report. In seeking material they should be able to find it rapidly and without frustration, thus making assignments easier and quicker to handle.

The Role of Faculty

Faculty will also be a determining factor in students' use of the library and their desire to further their understanding of library resources. Student use and nonuse can be directly related to the instructor's attitude toward the library, as several studies have shown. Faculty members need to key up on recently published research in their fields and ask the library to provide the material to the students quickly. Librarians cannot expect people to appreciate services about which they are not informed or educated. In several library use and nonuse studies, librarians conclude that a number of faculty make extensive use of the facilities but too many instructors make no use or very little use of the same facilities. This attitude is, of course, reflected in student use. Before an LRC can develop a successful library orientation for students, the library needs to have a successful record with instructional staff.

The time is ripe for library skills instruction in community-junior colleges. There is currently a "back to basics" movement in all education. Parents, educators, and employers are becoming more vociferous in their concern that students entering college (and often graduating) cannot read and write at the expected level. In the eyes of many, the ability to read and write *and* use the library are considered fundamental skills of college graduates. Therefore, community-junior college librarians and faculty must renew or intensify their push for the required teaching of library skills.

References

1. K. Patricia Cross, *Accent on Learning* (San Francisco: Jossey-Bass, 1970), p. 169.
2. John Lolley, "Educating the Library User," *Texas Library Journal*, 51 (Spring, 1975), p. 32.
3. Patricia B. Knapp, *The Monteith College Library Experiment* (Metuchen N. J.: Scarecrow Press, 1966), p. 40.

Getting Started in Alumni Development

Carol M. Henderson

A few years ago, Utah Technical College at Salt Lake committed itself to establishing an alumni program and, as a result, began exploring uncharted waters. In 1981, as the new Alumni Coordinator, I began contacting other two-year colleges around the country to get information on their alumni programs. I was surprised to discover that very few of these colleges had any alumni program at all. At that time, several of the institutions I contacted were just beginning to focus their attention on alumni relations, while others stated they had no interest in developing that area. Still other colleges informed me that they had attempted to organize alumni in the past, but had failed to keep anything going.

A comprehensive study (Luck and Tolle, 1976) confirmed what I'd discovered about two-year college alumni programs. Research revealed that less than half of community colleges kept active alumni rosters. Even fewer had established alumni associations. And 75 percent of all two-year colleges did not communicate with their alumni through any sort of publication. In fact, until very recently, the majority of two-year colleges did not even support the notion of an institutionally funded alumni relations program.

Lack of Concern

Many of these same colleges had not concerned themselves with development activities, of which alumni relations is an integral part, due to generous legislative appropriations. While Utah Technical College at Salt Lake was established in 1948, nearly half of the nation's community colleges were not established until the 1960's. As a result, "many early attempts to organize alumni failed because the potential numbers were small" (Kopecek and Kubik).

More recently, however, in a climate of decreased appropriations coupled with increasing enrollments and the need for new programs, many two-year colleges are moving to cultivate alumni support in conjunction with a comprehensive development program. Although the potential for fundraising is an important consideration, there are other convincing reasons for organizing alumni.

Reasons for Alumni Development

Our alumni are the best example of the college's accomplishments. Focusing on the success of former students in alumni publications and in local newspapers is a very effective way to enhance the institution's public image. Alumni can be educated about the college's programs and services through alumni publications and encouraged to promote the school among friends, family, and neighbors. As former students advance in their careers, the college can ask for their assistance in placing new graduates in jobs. And, alumni associations can help the college by organizing efforts to influence the legislative process.

According to the results of surveys completed by new graduates and non-returning students, the majority of our students are very pleased with most aspects of their UTC experience. By maintaining ties to our

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alumni, we hope to continue that happy relationship for years to come.

Getting Started

We began our alumni program by reviewing old student records and transferring names, addresses, and other information to the computer. The job has been a major undertaking, but has resulted in an accurate mailing list of nearly 10,000 alumni, though the task is not yet completed. This list is the heart of our program; there can be no effective alumni relations program without the capability to keep in contact with the alumni constituency. After all, how can we expect our alumni to maintain a continuing interest in the college unless we show our interest in them by attempting to keep them informed of our plans, advised as to our progress, and educated about our mission?

After about a year of continuous work on the records, we began sending a quarterly alumni newsletter, which we named "Developments." The publication is of simple design, but it accomplishes two major objectives: it informs our alumni about the college and it maintains the accuracy of our mailing list.

Alumni Council

About this time, we also started recruiting members for an Alumni Council. The Council was envisioned as a group of alumni who would assist the college in several areas. Some of the purposes for which the Council was organized were: to provide assistance in promoting UTC in the community and among its alumni; to provide a vehicle for communication between UTC's alumni and the college; to encourage alumni to renew emotional ties with the college by conducting reunions; and to assist in appropriate fundraising activities for use of the college.

There are currently 15 members of the Alumni Council representing diverse fields. In fact, the Alumni Association bylaws state that the membership must include at least one person (but no more than four) from each of six different instructional areas. The president is elected by the Council members and sits on the Institutional Council. This lends a great deal of prestige to the office and links the Alumni Council to the rest of the college.

Phonathon Fundraising

This past Fall, we conducted our first Alumni Phonathon. The Council members provided invaluable assistance in the organization of this fundraising campaign. They helped recruit volunteer callers, made signs and posters for the phonathon room, rounded up raffle prizes from local businesses, volunteered to be callers themselves, and helped out at the phonathon sessions.

The phonathon provided the perfect opportunity to test the alumni list we had worked on for so long. We found a lot of errors, which we expected, but we were able to personally contact over 3,000 local alumni. Twenty-seven percent of them made a pledge, resulting in contributions totalling nearly $10,000, which will be used toward scholarships and equipment.

Institutional Support

It must be emphasized that strong institutional commitment has been a key element of the success we've enjoyed thus far. The President of UTC, Dr. O. D. Carnahan, is very supportive of all that we do. We have also profited from tremendous cooperation with the Registrar's Office. Faculty, also, can be of immense help by informing the Alumni Office when they hear from former students.

We are just beginning to reap the benefits of having an organized alumni, and we're finding those benefits to be well worth the effort.

References

1. Michael Luck and Donald Tolle, *Community College Development: Alternative Fund Raising Sirategies*, 1976.

2. Robert J. Kopecek and Susan K. Kubik, "Opportunities for Alumni Relations," *New Directions for Institutional Advancement*, No. 15.

A Parting Shot: Finding Shakespeare

Ace G. Pilkington

I have been thinking a great deal lately about Shakespeare. I'm not sure that in the American tradition of pursuing the useful, practicing the practical, and defending the end result I can justify spending so much time, mental energy, rumination, and recrimination on so esoteric a subject, but I've been doing it nevertheless. It started when I overheard one of my former students (who had no idea I was anywhere in the vicinity) explaining to someone from another college who had taken a Shakespeare class and disliked it, that Shakespeare was really okay if you got the correct slant on him. "The guy who teaches it here," my former student said, "has studied Shakespeare at Oxford and knows all about it."

A Test Case

While such unsolicited and disinterested testimonials are always welcome, this one left me feeling faintly uneasy. It seems to me that Shakespeare is the quintessential test case for what we're doing at colleges in general and junior colleges in particular. He is a literary landmark, a cultural artifact, and a symbol of the profound value of the humanities. He is also an example of the hopelessly unintelligible muck that English teachers inflict on unfortunate students, the source of innumerable uncertainties and snobberies, and a product that sells well in the form of books, classes, festivals, and T-shirts. If the colleges can succeed in sorting Will Shakespeare out of this welter of relevance, research, and reverence, we are doing what we are meant to do; if not, not.

My students wander timidly into class, half-afraid to challenge a subject that they have always heard was impossibly difficult but more than half-afraid that they will be left out of something that is terribly important and, just possibly, enjoyable. If all goes well, they startle themselves with success, feeling somehow that the world is a warmer, more understandable place — even if what they begin to understand is the tragedy of human existence. If all goes ill, they wander away again, convinced that some doors will always be closed to them and that the rooms on the other sides of those doors are dark anyway.

Enemies of Shakespeare

At times I feel as though I am defending Shakespeare from a multitude of enemies: from the businessmen who do not believe that culture has a cash value (and who do not know what a good businessman Shakespeare was — on and off the stage), from politicians who see education as just another issue for the ballot and who believe that quality can be counted as easily as votes, from the snobs who close their eyes (and minds) in reverence before an irresistable and incomprehensible idol, from the scholars who have sometimes lost themselves and their subject in the labyrinth of secondary sources and impossible interpretations, and even from myself as teacher and authority, the one person (in my classroom, at least) who "knows all about it." One of my earliest memories — I must have been six or seven — is of struggling to read a tattered paperback copy of *Macbeth* while the television mumbled in the background. The

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book disappeared not long after that, and I never found it again, though I remember looking a number of times. It was like a completely closed circle of trees with only one secret, almost magical entrance that I stumbled through once and then lost permanently.

Magic and Wonder

But, of course, the magic and wonder of Shakespeare were still there, the language that has the sweep of the sea and the clarity of well water, the sympathy that surrounds everything and illuminates it somehow from outside and inside at once, and the characters who have gotten out of the books and off the stage and wandered the world for four hundred years.

I suppose that what I am really doing is not defending Shakespeare but finding him for myself and — I hope — for others as well. Finally, what we are all doing in the colleges is — I hope — finding the bright and dark pieces of the world puzzle and making enough of the pattern clear to our students so that they can find them for themselves.

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